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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/612,360	07/01/2003	Ned W. Holmes	Holmes.N-01	5433

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EXAMINER

ADDIE, RAYMOND W

ART UNIT	PAPER NUMBER
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3671

DATE MAILED: 09/29/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/612,360

Applicant(s)

HOLMES, NED W.

Examiner

Raymond W. Addie

Art Unit

3671

– The MAILING DATE of this communication appears on the cover sheet with the correspondence address –
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 01 June 2004.
2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-3, 5, 6 is/are pending in the application.
4a) Of the above claim(s) 5 and 6 is/are withdrawn from consideration.
5) ☐ Claim(s) _____ is/are allowed.
6) ☒ Claim(s) 1-3 is/are rejected.
7) ☐ Claim(s) _____ is/are objected to.
8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

DETAILED ACTION

Election/Restrictions

1. Newly submitted claims 4, 5 are directed to an invention that is independent or distinct from the invention originally claimed for the following reasons: The new claims 5, 6 now require the auger to have specific dimensional features; which were not originally claimed, and is distinct from what was originally claimed because the originally claimed auger only required dual flighting and did not require the specific structural dimensions now claimed.

Since applicant has received an action on the merits for the originally presented invention, this invention has been constructively elected by original presentation for prosecution on the merits. Accordingly, claims 5, 6 are withdrawn from consideration as being directed to a non-elected invention. See 37 CFR 1.142(b) and MPEP § 821.03.

Claim Rejections - 35 USC § 103

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1-3 are rejected under 35 U.S.C. 103(a) as being unpatentable over over Quenzi et al. # 4,930,935 in view of Christie # 5,599,098 and further in view of Applicant's admitted prior art.

Quenzi et al., as cited by the Applicant and incorporated by reference, discloses a

screed assembly apparatus (450) comprising:

A screed frame (552, 554, 556, 514).

A striker (466).

A rotatable auger (456) rotated by a hydraulic motor (463), and having a length of about
12 feet. See col. 15, Ins. 14-15

Auger mounting means (460) for mounting the auger to the screed assembly.

Wherein the striker is spaced to one side of the auger and parallel to said auger; and
further wherein said auger is mounted to said frame via an auger mounting means
(460). See col. 14, In. 45-col. 15, In. 30.

What Quenzi et al. does not disclose is the use of a dual flight auger. However, Christie
discloses an extruder screw/auger (10) having a plurality of flighting (12, 18, 20) also
known as a multi-flight auger. Which is known to improve the uniformity of the material
being mixed by the auger flights. Therefore, it would have been obvious to one of
ordinary skill in the art, at the time the invention was made, to provide the screed
apparatus of Quenzi et al., with a multi-flight auger, as taught by Christie, in order to
improve the uniform consistency of the material being mixed. See Christie col. 1, Ins.
16-32; col. 2, In. 53-col. 3, In. 29

Further, although neither Quenzi et al. nor Christie disclose the diameter of the auger
nor the spacing and height of the spiral flights; Applicant admits "The know-how for

preparing augers for the present application is well known, so that it is not necessary to teach the method of fabrication of a dual flight coil auger as it maybe easily extrapolated from the techniques of fabrication of a single flight coil auger".

Therefore, it would have been obvious to one of ordinary skill in the art, at the time the invention was made to provide the screed assembly of Quenzi et al. in view of Christie, with an auger having the claimed dimensions, since the Applicant has admitted to do so is well known. See Page 6, Ins. 9-12.

In regards to Claim 3 Quenzi et al. discloses a method for screeding uncured concrete comprising the steps of:

Mounting a striker (466) and a rotatable auger (456) in parallel on a screed frame (450).

Positioning the striker (466) spaced to one side of the auger.

Positioning the auger partially immersed in the uncured concrete.

Rotating the auger for removal of excess concrete while drawing the auger and striker in a lateral direction.

What Quenzi et al. does not disclose is the use of a dual flight auger. However, Christie teaches that multi-flight augers provide a more consistent and uniform mix of concrete than single flight augers. Therefore, it would have been obvious to one of ordinary skill in the art, at the time the invention was made, to provide the method of screeding

concrete, of Quenzi et al., with the method step of providing a multi-flight auger as taught by Christie, in order to form a consistently uniform mix of concrete.

See Quenzi et al., Col. 20, ln. 50-col. 21, ln. 62 ; Christie col. 3, Ins. 10-30.

Further, although neither Quenzi et al. nor Christie disclose the diameter of the auger nor the spacing and height of the spiral flights; Applicant admits "The know-how for preparing augers for the present application is well known, so that it is not necessary to teach the method of fabrication of a dual flight coil auger as it maybe easily extrapolated from the techniques of fabrication of a single flight coil auger".

Therefore, it would have been obvious to one of ordinary skill in the art, at the time the invention was made to provide the screed assembly of Quenzi et al. in view of Christie, with an auger having the claimed dimensions, since the Applicant has admitted to do so is well known. See Page 6, Ins. 9-12..

Response to Arguments

3. Applicant's arguments, see page 3, filed 6/1/2004, with respect to Claim 2 have been fully considered and are persuasive. The 35 U.S.C. 103(a) of Claim 2 has been withdrawn.

Applicant's arguments filed 6/1/2004, with respect to the rejection of Claims 1-3 as being unpatentable over Quenzi et al. in view of Christie have been fully considered but they are not persuasive.

Applicant argues "The references and prior art do not teach the use of a dual flighted auger for smoothing of poured concrete...Quenzi et al., which is a reference teaching the present state of the art in smoothing poured concrete teaches away from the use of dual flighted auger by directly teaching a single flighted auger with no mention that dual flights might be helpful".

However, the Examiner does not concur. In order for a reference to teach away from what is claimed, the reference itself must explicitly state, the features being claimed, would not be usable in the patented invention or it must be shown that such a modification as proposed by the Examiner, would in fact render the patented invention useless or otherwise unable to perform the intended function of the patented invention. Therefore, the argument is not persuasive.

Further, Quenzi et al. discloses the claimed invention except for doubling the number of flights mounted on the auger. It would have been obvious to one having ordinary skill in the art at the time the invention was made to double the number of flights mounted on the auger shaft, since it has been held that mere duplication of the essential working parts of a device involves only routine skill in the art. See *St. Regis paper Co v. Bemis Co.*, 193 USPQ 8.

Applicant then argues "Thus it is recognized that Quenzi et al. has not discovered the important smoothing ability of a dual flighted auger such as is taught in the present invention".

However, as clearly stated by the Applicant's disclosure the function of the auger is to distribute the paving material across the road base being paved. See Page 3, ln. 10, Ins. 26-27. Further it is the function of the screed plate itself to compact the paving material, thereby providing a smooth surface; as admitted by Applicant on Page 3, Ins. 8-9.

Therefore, the argument is not persuasive and the rejection is upheld.

Applicant then argues "Christie teaches an extruder screw with dual flights...However, one of skill would not consider using an extruder screw for smoothing concrete since an extruder screw is used for compacting and liquefying plastic resin and has process characteristics that do not relate to smoothing...An extruder screw is fully immersed within the material it moves and is fitted tightly within an extruder barrel, see Christie Figs. 2 and 3...this difference in process type, utilization and objective would exclude one of skill from consideration of using extruder screw technology in concrete smoothing".

Applicant then suggests "Christie does not teach,...'that multi-flight augers provide a more consistent and uniform mix of concrete than single flight augers".

However, the Examiner does not concur. As put forth in the Last Office Action, Christie explicitly teaches:

"Mixing is an important task of a single screw extruder, the other tasks being conveying and melting. However, mixing in such single extruders has always been a problem due to lack of uniformity and homogeneity in the melt.

The typical single flight single screw extruder inherently produces a non-uniform mix. This is because there is a large difference in the shear rate and the residence time in the outer and inner regions of the channel between the flighting".

This invention is directed to a screw design in which a plurality of flightings interact to divide the flow, and then recombine and then redivide and recombine the flow through a plurality of divisions. Simultaneously, at the regions of division, the flow is divided into two smaller channels which provide a higher shear stress within or along the channels as compared to that of the single channel.

See col. 1.

Hence, Christie was cited for its teaching that dual flight screw extruders, which are dual flight augers are advantageous over single flight augers because they permit more uniform mixing of the material being distributed by the screw/auger.

Further, it has been held that the test for obviousness is not whether the features of one reference may be bodily incorporated into the other to produce the claimed subject matter, but simply what the combination of references makes obvious to one of ordinary skill in the pertinent art. In *re Bozek*, 163 USPQ 545 (CCPA 1969).

Since both augers of Quenzi et al. and Christie are concerned with mixing and distributing a flowable material needing uniform mixing, to provide the most optimum final product, it would be obvious to one of ordinary skill in the art, at the time the invention was made to provide the screeding apparatus of Quenzi et al., with a dual

flight auger, in order to maximize uniformity of the mix, as taught by Christie.

Therefore, the argument is not persuasive and the rejection is upheld.

Conclusion

4. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

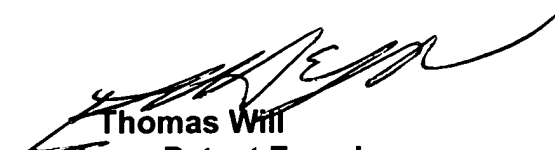
A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the date of this final action.

Art Unit: 3671

5. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Raymond W. Addie whose telephone number is 703 305-0135. The examiner can normally be reached on 8-2, 6-8.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Thomas B. Will can be reached on 703 308-3870. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).


Thomas Will
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Group 3600

9/21/2004